

Small Streams Workgroup (to be renamed the Classified/Unclassified Waters Working Group)

Summary of Discussions on January 15, 2009:

Matt Combes of the Mo. Department of Conservation presented aquatic life data on a number of smaller streams throughout Missouri. The data show that nearly all the sampled streams within the 100K National Hydrography Dataset (100K NHD) supported an aquatic community. In most instances, the communities were of similar abundance and diversity to the streams already classified in Missouri's Water Quality Standards.

John Hoke of the MDNR, Water Protection Program, presented information regarding the extent of streams contained within the 100K NHD. In most instances, the dataset includes up to the first tributary node and in some cases, into the first segment (into Strahler first order streams). Even so, the first order streams, or the 24K NHD, represent another sizable increase in stream coverage, or approximately another 80,000 miles of streams beyond the 100K NHD.

The workgroup discussed the advantages and disadvantages of using the 100K NHD as a default for stream classification within Missouri's Water Quality Standards:

Advantages

The 100K NHD presents a ready system for identifying and tracking a large increase in the extent of the classified stream segments.

Being a database, the NHD offers ways to electronically manage the information.

The 100K NHD is currently available to most internet viewers and is a recognized format by most other agencies for identifying and evaluating stream environments.

The 100K NHD covers the upper most extent of intermittent streams, above which streams transform into ephemeral types. Therefore, the 100 NHD seems to capture most streams that hold water for extended periods and, furthermore, support continuous aquatic life uses.

Disadvantages

The 100K NHD network likely extends beyond the stream reaches capable of supporting other Section 101(a) uses (i.e. swimming and human health fish consumption).

The large increase in classified streams (5x the current mileage) might increase the costs significantly for administering permits and water quality assessments.

The 100K NHD does not include a number of headwater streams where aquatic life uses might exist, for example, spring fed branches.

The group discussed these advantages and disadvantages in the context of three critical needs:

- 1) To satisfy the "fishable/swimmable" goal of Section 101(a)(2) of the Clean Water Act. This section requires all Waters of the US to be designated to default uses (Aquatic Life, Swimming and Human Health Fish Consumption) until these uses are shown to be unattainable through a Use Attainability Analysis (UAA).
- 2) To ensure that the classification system is manageable by the state, is accessible and legible to the general public, and is compatible with systems used by other agencies involved with water quality management.
- 3) To establish a proper foundation for the development and administration of other essential elements of the water quality standards; including the biological assessment procedures, reference streams, tiered aquatic life uses, biological condition gradient and UAAs.

The group discussed how the use of biocriteria becomes less certain when applied to headwaters. Headwaters react more variably to environmental events or stresses, making it difficult to ensure appropriate comparisons to headwater reference streams.

The group also discussed the need to ensure that all streams, even the smallest, are protected.

The department will prepare a "strawman" proposal for the next meeting on February 19, 2009 which describes how the 100K NHD could be used as a default classification, and how the department proposes to handle exemptions to this default where existing uses extend beyond the network or where UAAs demonstrate that the defaults uses as unattainable. The department will also present information on how far permitted facilities are upstream from 100K NHD segments.